way of an onyx, and considerably more of the iris has protruded, the prolapsed portion of the iris does not shrink when the inflammation begins to abate, as in the former case, but remains, and forms a projection at one part of the cornea, generally the lower or lateral. This projection is at first merely a bag of the iris distended by the aqueous humour; but, by and by, its surface becomes covered by an opaque firm tissue, of the nature of the tissue of cicatrices, and this tissue is incorporated at the base of the tumour with the sound cornea.' This, as he further observes, 'is not a distension of the cornea itself, but a protruded portion of the iris covered by a *new tissue*, intending to supply the loss of the substance which the cornea has sustained. The mode of origin of a *total* staphyloma is essentially the same, but differs only in degree.' The whole or greater part of the cornea being destroyed, the iris falls forward, the pupil becomes closed, and, the aqueous humour being thus allowed to accumulate in the posterior chamber, the iris is kept distended in the form of a tumour on the front of the eye. Its surface generally gets covered with an opaque cicatrice-like tissue, or pseudo-cornea, which assumes a greater or less degree of thickness, and a total staphyloma is the result.' The tissue, then, according to this writer, is not degenerated and opaque cornea, but a *new tissue*, developed on the surface of the iris exposed by the destruction of the cornea itself. The more recent investigations of Mr. Bowman appear to have supported Mr. Jones's views on this question; and he, in addition, states 'that the new material becomes covered with an epithelium continuous with the conjunctival, just as an ulcer of the skin acquires an investment of the cuticle as it heals.'

"Having, as I have just mentioned, made a most careful examination of the staphyloma before us, I could not avoid the conclusion that it is altogether a *new structure*, and confirms the views of both Mr. Jones and Mr. Bowman. We have in it no trace of the true cornea; both elastic laminæ have likewise disappeared, and we have substituted a *fibro-areolated* tissue, covered by a thick layer of epithelium, composed of several strata of cells, resembling very much a section of epiphisary cartilage."—*Dublin Med. Press*, Jan. 27, 1858.

---

## MIDWIFERY.

36. *Abolition of Craniotomy from Obstetric Practice.*—Dr. Tyler Smith read (Feb. 2, 1859) an interesting paper on this subject before the Obstetrical Society of London, a society very recently formed.

In this paper the author shows that craniotomy is resorted to in British practice about once in every 340 labours. The whole number of births in England and Wales exceeds 600,000 per annum; and if we apply the proportion of 1 in 340 to these figures, we get a total of about 1800 cases of craniotomy per annum. This is as though every year all the children born in London during rather more than one week were sacrificed; or as though all the children produced during the year in such a county as Westmoreland were born dead. The mortality to the mother from this operation is nearly 1 in 5, in British practice, which would give in England and Wales a maternal mortality of between 300 and 400 per annum. Craniotomy is performed about twice as often in British as in French practice, and four times as often in this country as it is in Germany. It is an obvious fact that every improvement which has ever been made in obstetrics has tended to restrict and diminish the cases and conditions in which the performance of craniotomy has been resorted to. It is the author's object to show that, with the proper and scientific use of all the means at our command, it may be laid down as a general rule, that craniotomy should not be performed in the case of a living fœtus after the period of viability has been reached. It is certain that, up to the present time, the measures which are the alternatives of craniotomy have never been carried out in practice to their full and legitimate extent. Turning was the first great obstetric operation which checked the voluntary destruction of the fœtus during labour. The objections

to turning which some obstetrists entertain depend on an almost superstitious fear of the uterus—a fear mainly owing to ignorance of the nature of the organ, and of the laws under which it acts. The dread of introducing the hand into the uterus has prevailed almost universally. But, apart from the danger of infection, the hand of the accoucheur, properly guided, can do no more harm in the uterus than any portion of the fœtus of equal bulk. Restrictions of the most absurd kind have been laid upon the operation, and it has come to be almost limited to arm presentations and cases of placenta prævia. On the continent, turning is the recognized practice in cases of difficulty, where the head is above the brim, beyond the reach of the forceps, when the os uteri is in such a state as to admit the hand, and when no serious distortion of the pelvis exists. The operation of turning in cases of moderate pelvic deformity was practised by Denman, but it was dealt with rather as an exception than a rule of practice until the matter was taken up by Professor Simpson. No unprejudiced person can read Dr. Simpson's papers on this subject without coming to the conclusion that turning may be performed in cases of moderate pelvic distortion at the full term, with comparative safety to the mother, and with a reasonable chance of safety to the child. It is also shown to be applicable to cases of greater deformity, in combination with the induction of premature delivery. Nothing has ever occurred in the history of turning which has so strongly tended to enlarge its usefulness as the introduction of anæsthesia into obstetric practice. Under chloroform we can turn with comparative ease in cases of excessive sensibility of the os uteri and vagina, in arm cases in which the waters have been long expelled, and the uterus has closed upon the fœtus with spasmodic force. It renders turning practicable in cases of convulsions or maniacal excitement, and in all instances it makes the uterus comparatively quiescent, and thus averts the dangers depending on contraction and resistance during the operation. Turning is performed nearly three times as often in France and Germany as it is in this country. After turning, the next great step in opposition to craniotomy was the discovery of the forceps. Before the time of Chamberlain, whenever turning was impracticable, there was no resource in cases of difficulty except in craniotomy. But it may fairly be questioned whether the whole powers of this instrument have ever been fairly brought out, especially in this, the country in which it was produced. If we examine our standard works, we find more pains taken to show when this instrument is not to be used than when it may be. The cases in which the forceps may be used are those of moderate disproportion or distortion, whether the arrest is at the brim, in the cavity, or at the outlet of the pelvis; cases of arrest from failure of the labour pains, without any morbid condition of the parturient canal; cases of convulsions in which the os uteri is dilated, and the head sufficiently low to be within reach of the instrument; cases of occipito-posterior presentation, not otherwise admitting of rectification, and face presentations; cases of accidental hemorrhage; and cases of rupture of the uterus, in which no great recession of the head has taken place. It should also be used at a comparatively early period in many of the cases which, if not assisted, run on to impaction from swelling of the fœtal head and tumefaction of the soft parts of the mother. The outlet and middle straits of the pelvis are the limits within which the short forceps should be used; at the brim the long forceps is the proper instrument. The forceps is used more than twice as often in France and Germany as it is in this country. The last, and it may truly be said the greatest, opponent of craniotomy is the induction of premature labour. The largest single source of craniotomy is deformity of the pelvis. Now, it may be asserted, without the possibility of contradiction, that in this great mass of cases, it would be right and practicable at once and forever to abolish craniotomy in the case of the living and viable fœtus. In all cases of known deformity, an examination should be made in the early or middle months of pregnancy, and the proper treatment of such cases should be the induction of abortion or of premature delivery. In cases of excessive distortion, where it would be altogether impossible for a viable fœtus to pass, abortion should be induced before the time of quickening. It would be quite impossible for intercourse and impregnation to take place in any case in which it would not also be possible to induce abortion with safety to the mother. In the very considerable number of cases

of moderate distortion in which the diminished capacity impedes delivery at the full term, but would allow of the passage of a child at the seventh or eighth month with a chance of living, the introduction of premature labour is the only justifiable practice. Besides the great operations of turning, the forceps, and the induction of premature labour, there are other means by which, in special cases, the necessity for craniotomy may be superseded. One of the most simple is the rectification of occipito-posterior presentations. When the occiput descends towards the sacrum in the third and fourth positions, instead of turning towards the right or left acetabula, great difficulty is produced, particularly in first labours, or when the head is large. Recorded cases of craniotomy show that the want of this rectification, which is generally possible with the hand, the lever, or the forceps, often leads to perforation. Cases of hydrocephalus in the fœtus are among the most difficult to deal with in an attempt to abolish craniotomy; but here we have the proposal of Dr. Simpson to tap the hydrocephalic head, and in this way reduce it so as to allow of delivery without the destruction of the fœtus. In actual occlusion or insuperable rigidity of the os uteri, incision is a safer and better practice than craniotomy. While it is the object of the present paper to advocate the abolition of craniotomy in the case of the living and viable fœtus, there is undoubtedly a class of cases in which perforation be practised beneficially, namely, in labours where the child has died during the course of parturition. No woman should be allowed to remain in difficult labour after the death of the child has been satisfactorily ascertained. Considering, then, the various means at our disposal in the way of preventing the necessity for craniotomy, the author unhesitatingly expresses his conviction that, as a rule of practice, craniotomy in the case of the living and viable fœtus should be abolished; and he believes that if all the resources of obstetrics in the way of prevention, management, and alternative treatment were properly wielded, the necessity for the operation would not arise.—*Medical Times and Gazette*, Feb. 12, 1859.

37. *On the Indications for the Application of the Forceps.*—By Dr. Spiegelberg. Among the indications those derived from the insufficiency of pains are the most frequently assigned, and the most liable to give rise to errors in practice. The head remains at the floor of the pelvis, the pains, though more or less strong, being insufficient in the individual case to expel it beyond the external genitals. The patience of the accoucheur becoming exhausted (much sooner indeed than that of the woman), he has resort to instruments in order to terminate the labour. That such a procedure, common as it is, cannot be justified, scarcely requires to be said.

Much more frequent in occurrence than these examples of actual insufficiency of pain (which the author has always found at this stage of labour, especially in primiparæ, a very rare circumstance) are the cases in which the head, in spite of strong pains, remains at the floor of the pelvis, and although pressed down by every contraction towards the mouth of the vagina never distends the perineum. Well aware of the impropriety of too early or of useless operative interference, at the beginning of his practice, Dr. Spiegelberg contented himself in these cases with temporizing and pain-increasing measures, too often, however, with the result of still having to employ the forceps at last, as it seldom happened that the pains alone proved sufficient. Under these circumstances, a large proportion of the children were stillborn. Taught by this experience, he afterwards in such cases resorted to the forceps earlier, and was, as regards the children, much more fortunate. He was also exceedingly surprised at the ease with which the head, apparently so firmly fixed, was extracted. Traction was scarcely required at all, a suitable adjustment of the instrument and a few lateral pendulum-like movements commonly sufficing to effect the delivery. Sometimes all was completed with one hand, the other supporting the perineum. While in those cases in which the ergot had been used to effect the propulsion, retention of urine, erosions, and inflammation of the vagina or vulva were met with, no such occurrences followed the use of the forceps. The cause, which in these cases prevents good pains proving effective, and renders a forceps operation so easy of execution, is a purely mechanical one—arising from the too great flexure